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THE GOVERNMENT BUILDING. *Sir John W. Simpson & Maxwell Ayrton, Architects*

The British Empire Exhibition Buildings

BY HUBERT C. CORLETTE [*F.*].

SO much has been written already about Wembley and its architecture that I hesitate to add more by accepting an invitation to provide some notes on the same subject. But it seems evident that the Exhibition buildings are creating impressions, causing thought, and acting as an educational influence. They have set a precedent of a kind that can be provided by the British Empire perhaps more easily than by another nation or national group, and for this reason, the reach of the Empire is world-wide. It is in contact with every kind of climate. It has among its exhibitors representatives of so many different races. And all of them have some custom or tradition of building in which they have made, or are making, their own local history. We may say that the Exhibition, in the way its buildings have been designed, is an object-lesson in our attitude towards the political or religious traditions of the various peoples not of European origin who compose the Empire. The Englishman has not yet become a confirmed egotist. He tolerates, almost to excess at times, the convictions and hopes of others, even though they may aim at his own destruction. Yet this attitude has its advantages. And in the Exhibition some of these are seen in his generous sympathy and liking for various phases of endeavour in architecture not solely of his own invention. Some may ask, how do we trace this in the Exhibition buildings? It is obvious to all architects. It is becoming evident to some of the general public; for they are being educated in architecture, quite rapidly in recent years compared with the rate of their advance not very long ago.

I went to Wembley recently to look at the buildings, avoiding the indoor exhibits and trying to discover what impression they made on me and might be making on others. A passer-by, one who was clearly of those who are called the general public, supplied me with a hint. It was just an ordinary remark in reply to some question or observation which I did not hear. But the response I did hear was, "Well, you see, all these buildings are built in the style of architecture of the different places." I heard no more. Standing as I was then between Canada and

Burma, I looked round and saw the reason for the remark. India, Burmah, West and East Africa, and, at the end of a long approach, the Dutch tradition in the South Africa building—each of these supplied a reason. And they are fine examples, all of them, of good reasons for what had been said. They each have the form and much of the texture and some of the colour that make them belong to those "different places." And though they are not permanent buildings, built in the durable, or partially durable, materials of those places, they are so well representative of a definite character in building that, without a costly journey round the world, they provide much for an architect to think about as well as the public in general.

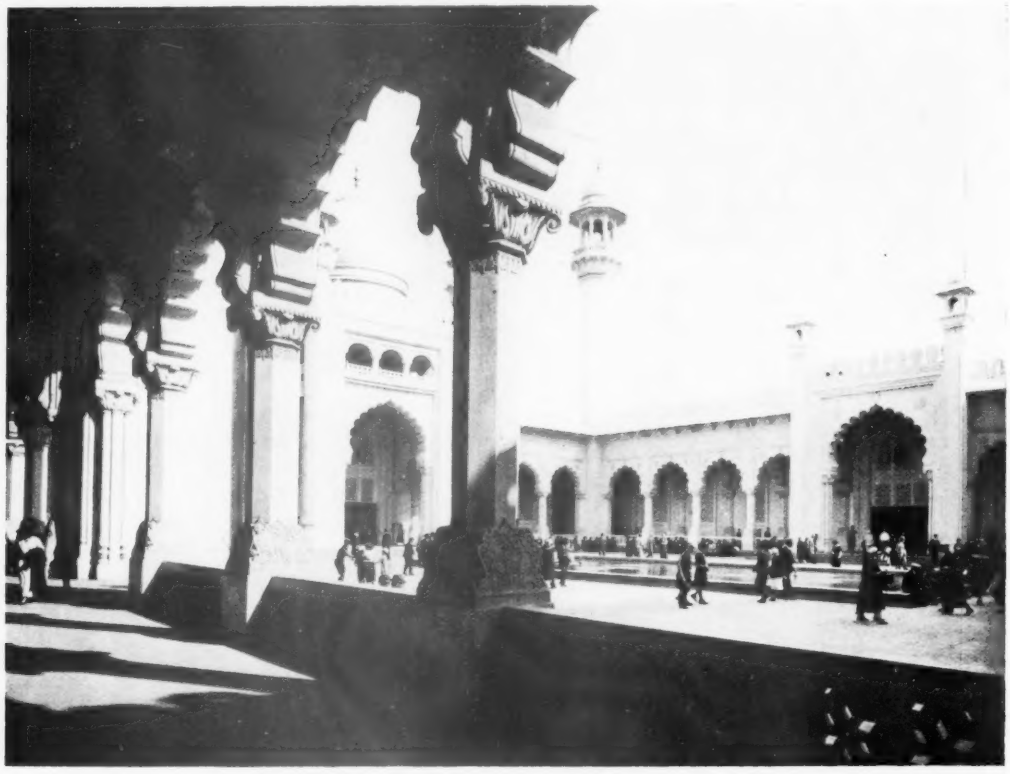
If we choose to study roofs, walls, windows, doors and entrances, buildings of a large or small scale, and the relation of their parts to the whole, there is plenty that is well worth observing. We can see much that is interesting in the way various buildings of different design, scale, and colour, are grouped in the general plan or lay-out of the Exhibition site. It is really like a scheme of town planning well thought out generally and carefully devised in detail. There are large avenues and long views, with generous gardens and prospects across the water of a lake, planned on a scale which responds to the bigness of thought in the scheme. And there are smaller gardens which show how much, or how little, can or may be done with modest plots of ground so as to make the most of the surroundings of a small house or a cottage. It is only too evident that some parts of the larger architectural conception of the general site planning of the total area of the Exhibition grounds have been interfered with by afterthoughts, or excrescences, that have been dropped haphazard from anywhere into the pre-arranged scheme. But these are not, and were not, a part of the thinking that produced the main plan. They seem, most of them, to be the product of advertising and commercial adventurers forcing themselves into unwanted notice with the rather rude effrontery by which a certain kind of notorious success is achieved. Too many are still satisfied to make a community suffer in a search for their trading profits. It may be said that the Exhibition itself is an Imperial adver-

THE PALACE OF ARTS. *Sir John W. Simpson & Maxwell Ayrton, Architects*

THE PALACE OF INDUSTRY. *Sir John W. Simpson & Maxwell Ayrton, Architects*

tisement. Let it be so. But it is possible to walk round this vast and wise adventure and see how advertising can be legitimately pursued with a fine sense of decency, a fine art of restraint, and fine endeavour. It is a sound lesson in necessary publicity co-operating with skilled design. The Palace of Industry particularly shows what satisfactory results can be achieved indoors by using the ability of trained minds to provide a decent setting for the manufactured products of industrial enterprise. Manufacturers and architects, painters and modellers, together with the various craftsmen whose capacities must always be exercised where the arts are used, have worked well together with one end in view under the general scheme in this building.

When we turn to look at the architectural values of some of the buildings, externally, what better advertisement could there be for the producers of the materials required in the great building industry than the use of them in building? In this way we see the relationship between the raw materials of architecture, the craft ability in detail of the various artificers employed, and the co-ordinating technical skill of the builder providing and assembling these materials where and when they are required at each stage of progress. And we can see, if we will, the advantages of control by design in the directing supervision of trained architectural capacities.



INDIA: COURTYARD. *Designed by White Allom & Co.*

There are buildings with no roofs visible. In these we can see the value of parapets or balustrades of various kinds, or study the use of different methods for finishing the top of a wall. Some rely upon a simple, almost unbroken, straight line as a termination for the walls. Others, as in the West and East Africa and India buildings, vary this line by other methods. In those with the roofs showing we can consider the effect of a visible roof-covering as compared with that where no roof is seen. And it is

WEST INDIES AND BRITISH GUIANA. *Sir John W. Simpson & Maxwell Ayrton, Architects*

MALAYA. *Sir John W. Simpson & Maxwell Ayrton, Architects*

well to note the pitch or slope used with the different materials suitable for it. Ceylon, Hong Kong, London Bridge, the West Indies, South Africa and other buildings show the value of roofs of various materials and the colour and texture given by slates or tiles of different shapes. Even shingles are to be seen, on a little building near the West Indies, as representing an industry carried on in British Guiana. The building for the West Indies and Atlantic group is a practical exposition of the value of using simple common-sense external form and converting the structural or practical need of plan and roofing into terms of architectural expression. If built in the Tropics there would, no doubt, have been more end by remaining the same. And there are no more of them than the need of the building demands. The roofs are a low tropical slope, for they would have no snow to cast off by the aid of a quick pitch. And so they run out to their natural termination in a pediment shape. For the pediment is only the southern, or tropical, form of the northern gable equivalent. Under such conditions the pediment is a legitimate architectural expedient. Without similar conditions it becomes a plagiarism. And when it is applied in petty profusion to the vertical surfaces of a wall it speaks of little more than a decorator's impotence.

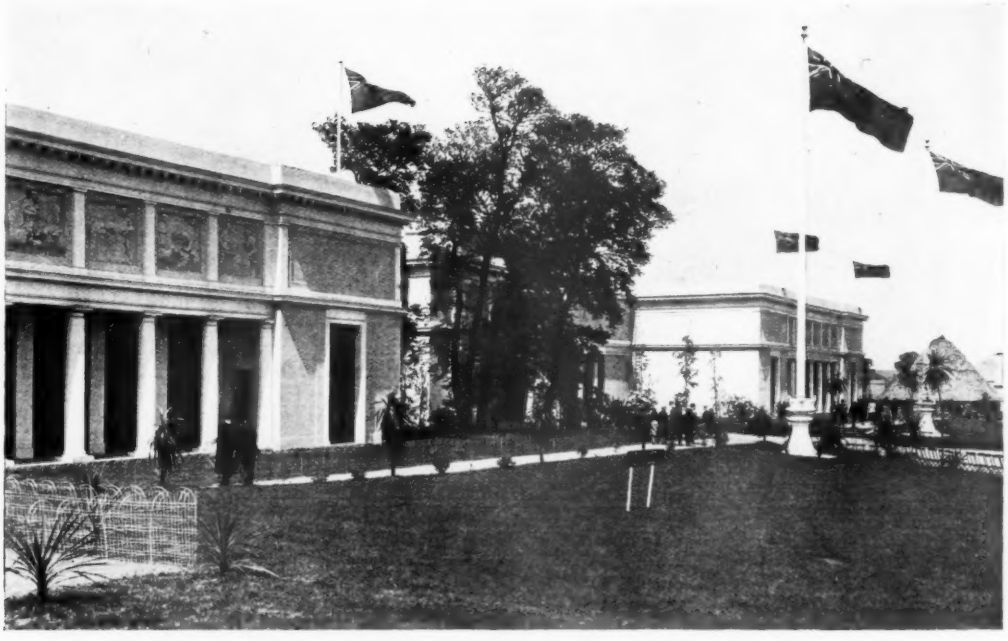
The Canadian building is something of an Italian translation through France into Quebec or Montreal.

CANADA FROM THE LAKE. *J. O. Turcotte, Architect*

recessing, more depth, in breaking up the larger masses of its plan forms to create cool shadows by making galleries, loggias, verandahs, or stoeps, and any suitable provision for reducing the physical strain of climatic conditions. It is a very suggestive building. It shows how much—and it is a great deal—can be done to make plain building produce good architectural qualities. The walls are not worried with any foolish moulded excrescences, the doors and windows are used as they should be to create interest where these necessary "features" occur. But they are not "features," mere concoctions of a designer. They are the useful elements well seized upon and converted into telling opportunities upon which skill is made to play. They begin as windows and doors and they

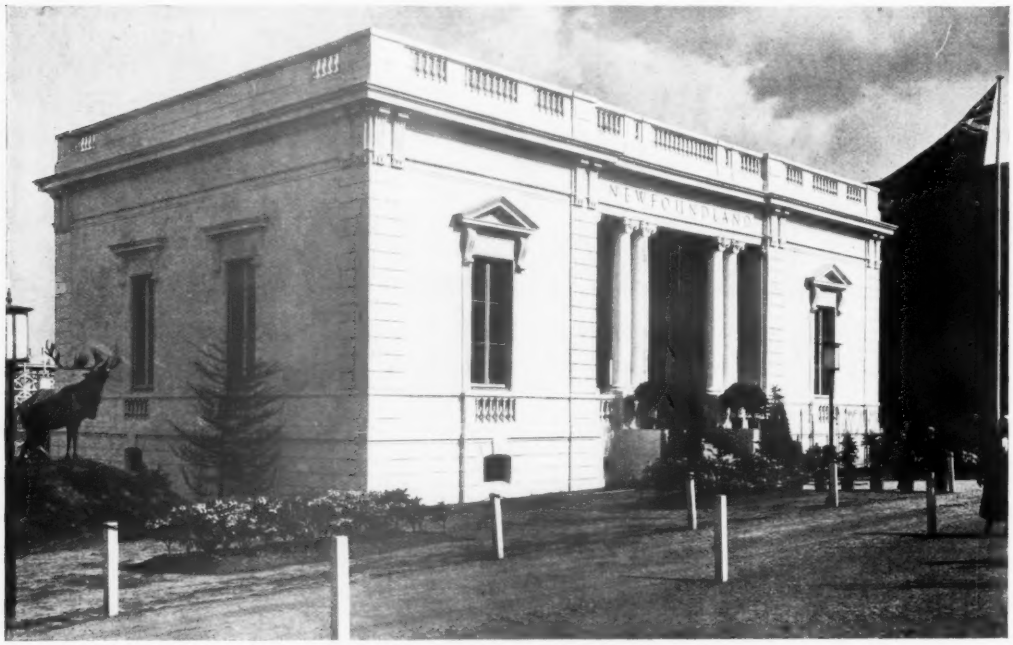
It has its own character, even if the details are rather small in scale, particularly for such a climate and quality of atmosphere, light and sunshine as England provides. In this block we can see repeated some of the peculiarities of what is called the Renaissance in the use of Italian reminiscences. The Roman form of a Greek structural member is introduced. But it appears, as it so often does in "revived" Latinisms, as a piece of applied decoration and not always with a functional purpose. Both Australia and New Zealand avoid the mere decorative use of functional members. And in these again the detail, though perhaps sufficiently strong for a southern light, with clearly defined shadows, could perhaps with advantage be increased in scale. All three of these buildings are,

AUSTRALIA. *J. G. Oakshott, Architect*



NEW ZEALAND. *Sir John W. Simpson & Maxwell Ayrton, Architects*

however, quite interesting in the simplicity of their form, their easy general shapes and quiet sky line. They provide a useful contrast to India and Burmah, where we see something of a revel in the play of varied intricacies of detail against the sky and much more desire for a diversity of general form in the masses of the building itself. But we need not decry this play with form. For it is but a means by which some difference of character is allowed to show itself in a building tradition. It is something of a relief to see this desire for variety when a dull, heavy, and sometimes



NEWFOUNDLAND. *Sir John W. Simpson & Maxwell Ayrton, Architects*

stern idea of form is gradually suppressing every little fresh gaiety, or decorative surprise, that might find an outlet if the technical skill of good craftsmen could be more encouraged.

The South Africa building is a really fine instance of what the old Dutch Colonial tradition can be made to do by capable handling for modern purposes. It shows what effects can be produced by an easily stated large general form and little or no detail. The broad restful surfaces, a wide and deeply recessed stoep, or verandah, the central and two wing projections, provide in combination a full volume of shadow, a valuable control of modelled shapes on plan and along the unbroken simple ridge lines of the roof. The coupled columns are not solely decorative additions to a structural form. They are part of the actual building, necessary elements in its construction. And being thus rational and functional, serving a purpose, as well as a sense of design, they satisfy the mind and please the eye. The principle of general unity is well maintained in conjunction with those of symmetry, repetition and contrast. This idea of unity is also carried on in the two shaped gable ends of the wing projections. They balance one another, stop the long ridge and eaves lines, and keep the whole length of the extended front within a well-defined boundary. By each of them echoing both the main outline as well as the detail of the other, their relationship to the rest of the façade is clearly emphasised. This building is admirable for the feeling of scale, proportion and reticent dignity it possesses, and for the absence of all undesirable detail. A simple general form is combined with long unbroken lines in a frontage of considerable length compared with the height to the eaves and the ridge. The architectural use of a wide expanse of broadly treated, unbroken roof surfaces is evident. The red pantiles that

SOUTH AFRICA. *Sir John W. Simpson & Maxwell Ayrton, Architects*

cover these surfaces provide a play of colour and texture, derived from the material, which is a contrast to the white plaster of the walls and the deep grey shadows that fall on these where they form the back of the long verandah. A slight projection only marks the centre of the main front. And there are the two stronger projections at the outer end of each wing, by which all the long running lines of the front are collected, arrested and given a changed direction till they stop against the gabled ends of either wing towards the front. The long range of doubled columns gives an example of a true organic use of supporting posts. The same things always look wrong when they serve no static purpose. Here they do some work. For they support the roof, where it rests on the eaves beam above the capitals, and they are also part of the essential planning of the building, since, by their use, they make the recess and shadowed verandah a studied factor in the whole design. The central projection is lifted higher than those of the wings. Its importance as a focus position is otherwise emphasised by a difference in the form and design of its gable end, by a larger doorway, in which some additional moulded detail is used as a foil to plain surfaces. And high up in this gable a niche is recessed to carry a small well-modelled figure. This is a singularly valuable addition. Its value is both architectural and decorative. For by the elimination of all competing detail it is readable as a definite element of character in the design; and, being so readable, it serves an architectural purpose by suggesting a note of comparison and adding a human touch of sense and scale to the whole composition.

It is interesting to see how the buildings of an early Colonial tradition can be a useful influence in the design of modern buildings. This tradition is valuable wherever we find it; for, whether it is Dutch, French, or English in origin, it always seems to express something of that freedom in outlook that the early settlers overseas took with them from a condition in Europe which, at the time they left home, was not always what they desired or could approve. The architectural story of the Empire does still, in many ways, indicate that desire for freedom in the exercise of craft traditions quite as much as in political and social growth. There was, and is still, a British Colonial tradition within the areas occupied by the early settlers in what is now the United States. And more of it can be traced in Canada, Australia, the Bermudas and the West Indian Islands.

If we now turn to look at the East and the West Africa buildings, we find much that is interesting. Some points already suggested for consideration will apply to these. There seems to be in them an evidence of the same desire to use the top edges of the walls to create an architectural quality in the completing of a building necessity. The Greeks and Romans finished a vertical wall with a cornice or some form of overhanging eaves. The later Italians used the balustrade; the Gothic men a parapet, solid, pierced, or, as it has been called, battlemented. India and all the East, as well as Africa, made much use of the top edges of walls for the exercise of ingenuity in which a decorative craft skill could be

EAST AFRICA
Sir John W. Simpson & Maxwell Ayrton, Architects

applied. And all the beautiful varieties that we know have developed out of a desire to use a practical, culminating part of the structure as a position in which this skill should be allowed some chance to be at work. These two buildings are at the same time a contrast and a parallel. They both provide an opportunity for the examination of simple external structural unity and a breadth of expression with colour. East Africa is a large field of white with some detail in cool green. West Africa is the colour of a

red earth with little relief in detail. Both are definitely successful from many points of view, whether we look for form, skyline, or a difference in wall textures produced by the material with which their surfaces are completed. West Africa indicates a still existing tribal condition in the simplicity of its elements. East Africa, in some of its detail, shows that to some definite extent the traditions of earlier civilisations have perhaps influenced, and even now control in some small measure, the craftsmen of the desert, or along the lake shores and river banks, and among the hills and forests of what is still the " dark interior " of these wild regions of the world.

There are many other buildings worth examining, both generally and in detail. Old London Bridge, as it is called, is one of these. But it is obviously necessary in a note of this kind to refer—though perhaps with too much brevity—to the larger reinforced concrete structures that are so marked and definite an achievement carried out by the architects for the Exhibition in collaboration with the consulting engineer. They indicate a very interesting advance in the use of this comparatively new material for modern building purposes. Much that is essentially valuable has been already written about the methods adopted in constructing these buildings. And we are all indebted to the experts concerned for giving so generously to their fellow architects and engineers the results of their experiences. In the *Architectural Review*, British Empire Exhibition Number, of June this year, all this work is technically examined in detail, fully illustrated and well described in several able critical articles. The illustrations given with this present note will show, better than words, how successfully concrete and steel can be used for building purposes which have been followed with a clearly considered architectural end in view. There is an easy dignity that is very impressive in all this work. The uses for which the several buildings were required have obviously been allowed to influence their general forms, outline, and plan. And the detail of them is so properly related to the peculiarity of method in building made necessary by the materials used for their construction. Some might be disposed

West Africa. *Sir John W. Simpson & Maxwell Ayrton, Architects*

OLD LONDON BRIDGE. *Sir John W. Simpson & Maxwell Ayrton, Architects*

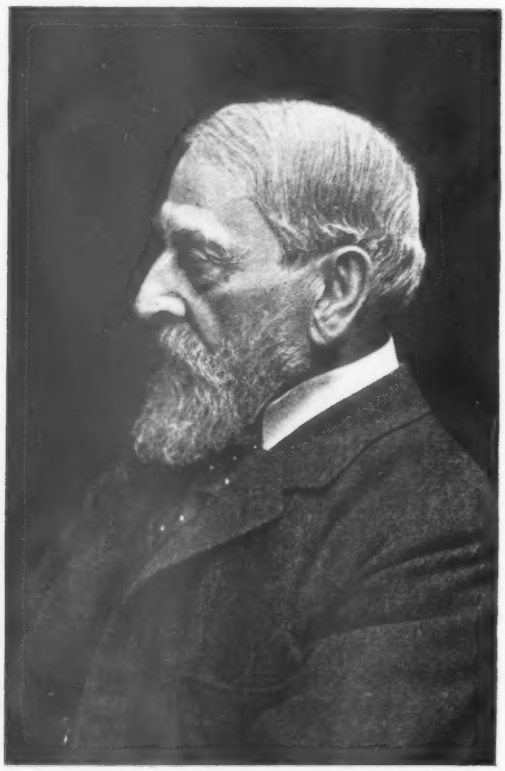
to criticise the relationship between bulk and function in the large piers of the colonnades, knowing that a very slender support in a vertical post of steel and concrete will carry weights of a surprising tonnage if required. But a building, if it is to look, and also be, satisfactory and satisfying, should appear as if it can do what it must. In other words, a sense of scale and proportion is to be preserved as between the structural parts of any architectural scheme and the whole building. That sense these piers provide, both by their own bulk and the differing shapes and proportions of the void spaces between them. To find the necessary mean between many extremes is one of the most exacting problems in all questions where design must operate. Bald and barely efficient structure, aiming at nothing but economy, and achieving something merely cheap, which is infinitely worse, can never be finally satisfactory. Architecture must come in to relieve the situation if civilised life is to be fostered or any thought of beauty in building endure. Materialism, utility and strict economy, alone, breed misers in every branch of thought if nothing is to be allowed for a little if occasional relief in something that can give pleasure as well as serve a hard business purpose. The Stadium could have been built without its impressive and towering front towards the great central axis of the whole lay-out. It might have provided then a saving that would have pleased the barren soul of a Shylock. But those who, like Jessica, prefer that a little pleasure be added to much profit, will always agree to afford a few things that can add dignity to their visible surroundings. The shape, the size, the scale, and the dominating position of the Stadium pull the whole Exhibition grounds together ; reduce to some extent the little interfering excrescences dotted about here and there, and provide a quite fitting climax to a great Imperial adventure, an experiment and a success, for which the promoters deserve our thanks and their expert advisers our sincere congratulations.

THE STADIUM. *Sir John W. Simpson & Maxwell Ayrton, Architects*

Thomas Edward Collcutt, Past President, Royal Gold Medallist, R.I.B.A.

BY JAMES S. GIBSON [*F.*].

On Tuesday, 7 October, Thomas Edward Collcutt died at Southampton. All architects who knew him in life felt the loss of a great personal friend and one whose interest in architecture was vital to the end of his long and successful career, while the younger generation will mourn the passing away of one who was intensely interested in the education and training of competent architects.



MR. COLLCUTT, FROM A RECENT PHOTOGRAPH

One of the astonishing characteristics of the man was that his mind was so sympathetic to the aims and ambitions of the youngest school of architects, tempered by the long years of experience and wisdom which these had enabled him to bring to bear on new and untried methods of education and training.

When one remembers that he was born on 16 March 1840, that he was trained in the office of G. E. Street, who was then engaged on the Law Courts and who practised Gothic architecture as he knew it with something akin to the fervour and fanaticism of religion, and that in those days the energy and enthusiasm of the rival schools of Classic versus Gothic absorbed the interests of all keen architects in a greater measure than at any subsequent period, it is small wonder to us, who have never passed through such an experience, that Collcutt should look upon the battles of all styles and schools with a detachment and fairness which those strenuous days had impressed on his mind.

The passing of the years, the ripening of the mind, the experience of the futile rivalries of differing phases or periods in the history of architecture, as distinct from the vitality and worthiness of all architecture which expresses any noble sentiment or striving in the

mind of the designer, brought to Collcutt that wisdom of judgment and sympathy with earnest effort which endeared him to all who knew him.

It is over 30 years since the day I entered Mr. Collcutt's office as an assistant and found myself one of a band of enthusiastic young men who were helped by him—who was still more enthusiastic—and encouraged by his sympathy and support. The practical steps he took to assist us in those far-off days were wonderful. Although we were all busily engaged on the various works in the office, he brought an instructor there on two or three mornings every week who expounded to us construction, particularly the designing of steel for buildings, the London Building Act, and such like matters, that were vital to the usefulness of our work and helpful in our careers. It was an entirely novel experience for me to be thus helped during office working hours, and it shows how practical Collcutt was in the manner of his assistance to the younger men. These days were of the happiest nature and were followed by a friendship which lasted till his death.

At that period we were engaged on the Imperial Institute, South Kensington, the Royal English Opera House in Shaftesbury Avenue for Mr. D'Oyly Carte, which is now known as the Palace Theatre, and the City Bank on Ludgate Hill, now the Midland Bank. I think this period may be taken to be the most characteristic of his work as it comprises the delicacy and minuteness of detail and ornament combined with the largeness and simplicity of form which are the outstanding features of his designs.

His personal touch is to be found in these buildings. The amount of the work done by him every day in the office was extraordinary and must have been a legacy from Street, who also insisted on doing practically everything himself. Our business was to set up the various scale and full-size drawings, but it was his hand which altered, improved and finished them, so that the buildings as we know them are the expression of his mind. How far his love of colour and a small unit of building material, such as bricks and terra-cotta, influenced the character of his designs is difficult to determine, but it must have had a considerable bearing as he was always the most practical of constructors.

There were no " tricks " of putting up a skeleton steel structure and then clothing it with some building materials which had no reference to the bones beneath.

At the Imperial Institute, the central tower of which is some 300 feet high, the walls are built solidly of bricks from foundation to top. It is an example of honest construction having an architectural treatment that will be impressive and lasting for many generations.

Bentley at Westminster Cathedral has solved the same problem with similar success, although in a different style of design, and both these great towers are lasting memorials to the genius of two great men.

Of the variety and extent of his practice it is difficult for me to write fully, as the volume of work accomplished must be very large, and I hope that a comprehensive list will be published in the JOURNAL as a record of a life well spent.*

Of his early works, the Town Hall at Wakefield is familiar to me. It is a severe and restrained building of Yorkshire stone, now gone very black in colour, and the delicate mouldings, which he was later still further to refine, are now less effective than when cut in freshly quarried stone. This building has finely placed plain wall surfaces and a well designed clock tower, while the interior is full of interesting and beautiful detail.

Among his later buildings, the Savoy Court, that part of the Savoy Hotel fronting the Strand, is to me most interesting because of the use of a glazed terra-cotta which gives a small unit of building and governs the type of design. The fitness of this material for the London atmosphere is being proved successful, for while there cannot be the charm of weathering which comes by age to stone or brick there is in the varied colour of the material itself that quality which the designer must have had in mind when embarking on the work and which by the simplest washing down can always be retained.

The adoption of this material is another example of Collcutt's alertness of mind to practical requirements and his quality of design is a justification of the experiment. He has employed mouldings that are just sufficiently telling without harbouring dust and dirt from the atmosphere, and the enrichments are such as can be easily cleaned and made as effective as when new.

Lloyd's Registry of Shipping offices is a Portland stone building and the material has influenced the design, as the unit employed is larger, the features are broader and bolder in projection, while all the detail is essential to stone construction. There is a great amount of varied work in the interior of this building and, as a rule, the detail and design of the architect's interiors are fascinating.

Some very attractive domestic work has been designed by him, one of the earliest houses being that in red brick in Bloomsbury Square, where he lived and carried on his practice during the first part of his career. This house must be well known to many students and to others who have entered it in the hope of joining his staff.

In my view, his domestic work shows a happy mind engaged in planning a house that shall be comfortable to live in, easy to work, pleasant to look at, and with little accidents of plan and design to interest and delight the architect and the owner. As a rule the type of design is the outcome of the material employed ; there is rarely anything imported for effect or foreign to the locality, so that the house pleases by its naturalness and its suitability to its environment.

Covering a field so varied as this in the course of a long practice it would be difficult to say, even if it were wise, how Collcutt compared with his contemporaries, but of this we may be assured, that he produced work so

*** It is hoped to publish a complete list of Mr. Collcutt's works in a subsequent issue of the JOURNAL.

individual and distinguished that it will have a beneficial effect on the work of those who succeed him, especially if the underlying principles of his designs are grasped by those who admire its forms and colour. However successful his practice may have been, I am confident nothing could have given him greater pleasure than the knowledge that his work might help those who follow him to a measure of still greater artistic achievement.

In 1902 the Royal Gold Medal was presented to him at the Institute and on this occasion his friends and admirers expressed how greatly they appreciated his work, which merited that great honour and at the same time shewed him too how truly he was loved for his fine qualities as a man.

He was President of the Institute from 1906 to 1908 and filled that position with dignity and charm. His work for the Institute extended over many years and he always took a lively interest in the things that really mattered to the profession. It will be remembered that in 1921 he read a paper on the subject of "A Plea for a Broader Conception of Architectural Education," which originated a lively debate and helped to stir the minds of architects with regard to the future development of the profession. The fact of his being in a small minority never hindered him from expressing his views if he was convinced that they would be of ultimate benefit to those to whom they were expounded.

He was singularly simple and direct in the statement of his views and when confident that they were right and worthy of expression had no fear in submitting them to criticism, while his nature was too lovable to make him bigoted or unable to see the probability of other points of view.

Among the honours bestowed upon him that of being a corresponding member of the Société des Artistes Français and an honorary member of the Société Centrale d'Architecture de Belgique must have given him the greatest pleasure as an evidence of the feelings with which his fellow artists in these countries so worthily regarded him.

He was awarded a Grand Prix for Architecture at the Paris Exhibition of 1899, and he designed a number of Exhibition buildings in variouscountries,the principal I remember being for the P. and O. Steamship Company.

Among his works are the fitting up and decorations of large passenger steamers and in these he employed some of the best decorative artists of our time, giving them a wonderful opportunity for the display of their talents and bringing all their work into harmonious schemes.

Of leisure moments I suppose he had few, but he filled up some time by designing furniture, which no doubt interested him and certainly pleased those who were fortunate enough to possess it.

From this rather discursive note it will be seen how extensive and varied was Mr. Collcutt's career, and although his energies were spread over so wide a field, each individual piece of work seems to contain within itself the concentration of his talents.

This concentration of effort on the immediate work in hand is one of the rarest qualities among des'gners, and explains the charm of most of Collcutt's work. It is only by taking a comprehensive view of the scope and variety of his life's work that one gets an idea of an extraordinary versatility that was combined with concentration.

By Andrew N. Prentice [*F.*].

Having had the privilege of knowing Mr. Collcutt intimately for over 30 years and having also been a member of his office staff, I venture to add a few lines to Mr. Gibson's appreciation.

I feel sure that the whole profession will join with me in deploring his loss and in according the highest tribute to the memory of an architect of such eminence and outstanding ability.

At a time when architecture in this country was at a transitional stage—the great Gothic revival having spent its effort, more especially with regard to secular buildings, giving birth in turn to a feeling among our architects for a light form of Renaissance—Mr. Collcutt gave a lead and developed a rendering of the movement of the day, characteristic of his own genius. What is noteworthy is, that it was a thoroughly English rendering of the Renaissance. No one can say that the Imperial Institute is an adaption of any building in France, Italy or Spain. This was his most important work, a fine conception, viewed as it is to-day, standing in great dignity, mellowed by the hand of time.

I say Mr. Collcutt gave a lead; other buildings quickly followed, plainly indicating the influence of his early work. I need only mention designs for public and municipal buildings carried out by architects whose names are familiar to us all.

Mr. Collcutt for many years after the building of the Imperial Institute, carried on a large and varied practice, keeping in touch with the thought and requirements of the day, and consequently his later work developed a more severe form of architecture. Fine specimens of his later style are the façade of Lloyd's Registry of Shipping and the Savoy Hotel. Mr. Collcutt carried out many hotel buildings, a most delightful example being the Reina Christina Hotel at Algeciras in the south of Spain.

He was an upright and staunch friend, and his charming personality could not but endear him to everyone with whom he came in contact.

Mr. Collcutt's funeral service took place at Totteridge Church, Hertfordshire, on 11 October. In addition to his relatives and friends present, there were among the members of the Institute :—Arthur Keen, Hon. Secretary R.I.B.A.; H. P. Burke Downing [*F.*]; Frank Lidman [*F.*]; Gerald Unsworth [*F.*]; Andrew N. Prentice [*F.*]; Norman Evill [*F.*]; Stanley Hall [*F.*]; Llewelyn Roberts [*A.*]; C. H. Norton [*F.*]; Ian MacAlister, Secretary R.I.B.A. (representing the President R.I.B.A.), and Major H. C. Corlette (representative in Great Britain of the Australian Institute of Architects).

The L.C.C. Survey of London

BY PROFESSOR A. E. RICHARDSON [*F.*].

This authoritative work is the first volume dealing with any portion of the City of London, and the Committee have rightly decided to start the series with a full account of the church of St. Helen, Bishopsgate. The work will be of unusual interest to architects and antiquaries, for not only does it deal with one of the oldest Parish Foundations of London, but it brings to notice the part played by this opulent Benedictine nunnery associated for three centuries with city life.

The letterpress is divided into ten sections and, in addition, there is a bibliographical note which, together with an index and a hundred and twenty-three plates, completes the survey. Mr. Alfred Clapham has directed the preparation of the material, and the historical account of the Priory has been contributed by Miss Minnie Reddan.

A survey of this nature falls outside the sphere of ordinary bookmaking. Whereas in the past a man of the stature of Stow would have spent the major portion of his life gathering facts, the work is now accomplished with greater accuracy and speed by a band of experts fired by a common purpose. It is true, on the other hand, that the modern antiquary is farther removed from events than the old compilers, but he has the advantage of viewing the tapestry of the past in full and can bring to bear a judgment ripened by acquaintance with buildings and historical records which hitherto were not apprehended at anything akin to their true value.

The volume, like the church it describes, is a record of London life from mediæval times to the present. The old London that is so apparent to the scholar stands forth for all to scan in engraving, sketch, measured drawing and photograph. We read of the jurisdiction of Ralph de Diceto and other deans of St. Paul's, of permits to the "priores" and the nuns, and of agreements made between the latter and certain London merchants to found charities in return for benefits to the church.

Other pages reveal internal dissensions between the nuns, followed by inquiries and visitations, and later, of the mismanagement of the financial affairs of the house; and so the account is carried on to the time of the Reformation. One has only to peruse the detail of payments and outgoings to realise the immense amount of research undertaken to make the work authentic.

Chapter II. deals with the history of the church during the post-Reformation period. The vestry minutes, we are told, began in 1563, with a serious gap between the years 1578–1676, and it is from these parish records that most information is gathered regarding the fabric.

In Elizabeth's day it is recorded that Sir Thomas Gresham promised to build a steeple, but apparently this was never carried out. Stow, writing at a later date, also mentions some minor alterations. Apart from the mediæval interest, which is varied, architects will be mainly concerned with the extensive repairs undertaken between the years 1632–33, when subscriptions were obtained from the City of London Corporation and various City Companies. Apparently no credence can be attached to the legend that Inigo Jones superintended these repairs. Late in the 17th century it was decided to consult Sir Christopher Wren about repairs, which were completed in 1697. Other repairs, it appears, were carried out in 1710, 1742, 1763, and the unsparing hand of the restorer fell heavily on the interior of the building at various times during the 19th century.

One of the most interesting plates is No. 123, which shows the extent of the buildings from the 12th century to the present time.

When it is realised that any building can hold such a wealth of information regarding the lives and ambitions of those to whom at various periods and under different kings London City was very real, some idea, even the vaguest, will be glimpsed of the vast heritage that has come down to us through the centuries. In such an atmosphere as the church of St. Helen it is possible to commune with the old Londoners, to understand something of the civic spirit that animated life when the great city was bounded by its ancient circumvallations; to dwell on the meaning of it all and to come away refreshed and determined. What a repository is this tangible relic of mediæval thought and aspiration! How the first masons must have revelled in their geometric exercises, and with what delight the statuaries fashioned the tomb of Elizabethan citizens—a pleasure handed on through the Civil War, the Restoration, and the Hanoverian Succession, to be enjoyed by a lineage of merchants who willed some portion of their gains to a similar purpose!

No Londoner who has respect for his City can afford to be without the full series of the Survey Volumes on his shelves, and some debt will still be outstanding to Messrs. Batsford, who have given their publishing talent towards the production of this work.

London County Council Survey of London. Volume IX. Parish of St. Helen, Bishopsgate, Part I. Issued by the Joint Publishing Committee representing the London County Council and the London Survey Committee. £2 2s. net.

Ciment Fondu and Mixtures of Ciment Fondu and Portland Cement

BY W. NORMAN THOMAS, M.A., D.Phil., M.Sc., A.R.I.B.A., A.M.Inst.C.E.

Introduction.

The experiments here described were carried out recently at the Engineering Laboratory, Oxford.

They may be divided into two groups :—

(1) Those dealing with *Ciment Fondu.

(2) Those dealing with mixtures of Ciment Fondu and Portland Cement.

In the former class, the experiments undertaken to investigate the effect of temperature upon the setting properties and upon the strength of neat Ciment Fondu, give results which are at variance with various statements which have appeared recently in the technical Press.

In the latter class, the experiments upon mixtures of Ciment Fondu and Portland Cement give rather surprising results. It is found that by mixing the two cements it is possible to modify the times of setting, within very wide limits—for instance, the time of final set may be reduced, if desired, to within six or seven minutes. This is, of course, too rapid for most practical purposes ; the very quick setting mixtures would be useful only for special purposes where small quantities were required at a time, for repair work in difficult or wet situations, for jointing, or as a substitute for lead or other materials for fixing posts, railings, etc.

But *any* intermediate times between this and the normal setting time may be obtained, and that without the soundness being affected or without any very appreciable loss of strength, particularly if the bulk of the mixture is of Ciment Fondu, rather than of Portland Cement.

The mixtures do not show any falling off in strength up to three months.

It is realised, of course, that, by other means, the setting times of Portland Cement can be modified, and that other quick setting cements can be produced ; but the writer is not aware that the information given in the present paper has been published before.

Ciment Fondu.

(1) *The Influence of the Water Content upon the Tensile Strength.*

The test briquettes were made in the usual manner and tested in an Avery machine, the cement being aerated for 24 hours, and well mixed with the water before putting into the moulds. The finished blocks were covered with a damp cloth and kept in the air for 24 hours, at the end of which time they were immersed in water at the laboratory temperature (15° to 16°) and kept there until tested.

For most mixes, it was found that the top surfaces of the briquettes flaked badly. The briquettes were finished as usual, by drawing the trowel two or three times over the surface to remove surplus material. This action appeared to leave the top layer of a different consistency from the remainder of the briquette. Sometimes the layer flaked off before immersing in the water—at other times it adhered to the block until placed into the water, when a quantity of bubbles was given off from the briquette and the surface dislodged. The surface layer thus displaced was usually quite a thin sheet, but in one case, with only 15 per cent. water, 5 to 10 per cent. of each of the briquettes was lost.

Some briquettes were finished with the fingers and not smoothed off with a trowel : these did not flake to the same extent, though, there were still signs of flaking with a few of them. It was found that flaking could be best prevented by covering the briquettes with a glass plate immediately after mixing, and leaving them thus covered until ready to be placed into water on the second day.

A damp cloth placed over the briquettes during the first 24 hours before they were immersed in water did not prevent the flaking, but a strip of blotting paper kept wet and in contact with the cement during this time was efficacious.

The results of the seven-day tests upon the briquettes mixed with various percentages by weight of water, are shown in Fig. 1. It will be seen that the maximum tensile strength of about 935 lbs. per sq. in., was obtained with 21 per cent. of water, and this proportion of water was therefore adopted for the further tests.

To compare the consistency with that recommended as a standard by the Building Research Board, the cement having been well mixed with water for five minutes, was placed in the brass mould of the Vicat needle apparatus, upon a " flow table." After the mould was removed, the table was repeatedly raised ½ in. and dropped suddenly thirty times in one minute. This treatment caused the cement block to flow outwards and to form a pat of 5·8 in. diameter. The standard consistency recommended by the Building Research Board is such that a 7 in. diameter pat is formed on the flow table.

A consistency curve showing the diameter of the pat formed with various percentages by weight of water is given in Fig. 2. To form a 7 in. diameter pat 23 per cent. of water was required.

As already mentioned, the consistency recommended has not been adopted in these experiments, but that consistency which was found to give the maximum tensile strength on the seven-day test.

(2) *The Influence of the Water Content upon the Compressive Strength.*

The compression tests were carried out upon cement cylinders of either 1 or 2 square inches sectional area,

* " Ciment Fondu " is the trade name for an aluminous cement prepared by burning at a very high temperature (for instance in an electric furnace) a mixture of lime and bauxite in nearly equal proportions. Its chemical composition is stated by the manufacturers to be roughly : Alumina, 40 per cent. ; Lime, 40 per cent. ; Silica, 10 per cent. ; Oxides of Iron, &c., 10 per cent. It is darker in colour than a Portland Cement and its cost is higher. It is mixed and used exactly as is a Portland Cement, but it has some remarkable properties, as is shown in the present paper.

It seems to have been first used in 1918, by the French Army when it was employed in the construction of heavy gun emplacements requiring to be brought into immediate operation against a retiring enemy.

as the capacity of the testing machine available was limited to 10 tons. The cylinders were kept in air for 24 hours and then immersed in water until tested.

The results of the tests are shown in Fig. 1. Apparently the water content does not seriously affect the compressive strength provided that the mixture is quite plastic: there is very little variation in strength with mixtures containing from 20 per cent. to 30 per cent. by weight of water.

The compressive strength with 21 per cent. of water was about 3·0 tons per square inch, after seven days.

(3) *The Influence of Temperature upon the Tensile Strength at various ages.*

Three series of experiments were made; one series at the laboratory temperature, 15° or 16° C.; one series at a low temperature, 0° to 5° C.; and one series at a temperature of about 35° C.

The briquettes for the low temperature series were mixed with water at about 2° C., and kept slightly above the freezing point for 24 hours. They were then immersed in water which was usually a few degrees above zero, but which for a part of the time had a thin film of ice formed on its surface.

The cement for the briquettes of the high temperature series was mixed on a warmed glass plate with 21 per cent. of water at 35° C., put into warmed moulds and kept in an oven at about 35° C. for 24 hours. During this time the briquettes were covered with a damp cloth until on the second day, they were placed into a bath of water at 35° C. The bath was provided with electric heaters and varied very little in temperature. The briquettes of this series were of excellent shape, showing no signs of flaking.

The results of these three series of tests are plotted in Fig. 3, and they show that an increased strength is obtained at the higher temperatures, and a decreased strength at the lower temperatures.

The tensile strengths after seven days at the different temperatures are given below.

Approximate Temperature. Deg. C.	Strength after 7 days. lbs. per square inch.
2	850
15	935
35	1070

Some briquettes were tested after 24 hours in air, and others after six hours in air and 18 hours in water, with the following results:—

Approx. Temperature. Deg. C.	24 hours in air. lbs. per square inch.	6 hours in air. 18 hours in water. lbs. per square inch.
2	405	—
15	565	850
30	678	865

(4) *The Influence of Temperature upon the Compressive Strength at various ages.*

Compression tests were carried out upon cement cylinders, to correspond with the tensile tests described above, and the results are plotted in Fig. 4. As before, an increased strength was obtained at the higher temperatures, and a decreased strength at the lower temperatures.

The compressive strengths after seven days at the different temperatures were as follows:

Approximate Temperature. Deg. C.	Strength after 7 days. Tons per square inch.
2	2·15
15	3·0
35	3·65

The results of tests made after twenty-four hours are as follow:

Approximate Temperature Deg. C.	24 Hours in Air. Tons per square inch.	6 Hours in Air, 18 Hours in Water. Tons per square inch.
2	2·48	—
15	2·59	3·12
35	1·90	3·29

(5) *The Influence of Temperature upon the Times of Initial and Final Set.*

The setting times of Ciment Fondu were determined with the Vicat needle apparatus as described in the British Standard Specification for Portland Cement, but at various temperatures from 3° or 4° C. to 50° C. The amount of water used was 21 per cent. by weight in each case.

The results, which are plotted in Fig. 5, show very clearly that the times of setting are retarded by low temperatures and hastened by high temperatures.

The following figures illustrate this:

Temperature. Deg. C.	Initial Set Hours.	Min.	Final Set. Hours.	Min.
4	3	20	8	15
15	2	25	5	15
35	1	25	2	35
50	1	0	1	55

These results do not agree with views that have been expressed recently respecting the action of frost on Ciment Fondu.

One account,* for instance, states that concrete made with Ciment Fondu was considered to have set quicker and harder during frosty weather than under normal conditions. The present experiments do not uphold this view, for though the action of frost upon concrete in bulk might be much less marked than upon small neat cement samples, yet the action is unlikely to be reversed, and the present experiments show both a retardation of the setting times and a lowering of the strength.

MIXTURES OF CIMENT FONDU AND PORTLAND CEMENT.

(1) *Setting Times of Various Mixtures.*

For the Portland Cement used in these tests, at laboratory temperature the time of initial set was 3 hours 50 minutes, and that of final set was 5 hours 40 minutes.

For the neat Ciment Fondu, the time of initial set was 2 hours 40 minutes, and that of final set was nearly 6 hours.

For mixtures of these two cements, the curves in Fig. 6 show that the setting times were hastened in an extraordinary manner. Thus it will be seen that

(1) The final setting time of Ciment Fondu was reduced from nearly 6 hours to less than 15 minutes by the addition of about 20 per cent. of Portland Cement, the time of initial set being reduced from 2 hours 40 minutes to about 7 minutes.

* Journal of the Institution of Municipal and County Engineers, 12th February 1924, p. 758. *Vide* also "The Action of Frost on Ciment Fondu," *Engineering*, 28th March 1924.

(2) The times of setting could be reduced to any intermediate values by modifying the percentage of Portland Cement as within these limits (0 to 20 per cent. of Portland Cement) the reduction in the setting times was approximately proportional to the amount of Portland Cement.

(3) The effect of adding a small percentage of Ciment Fondu to the Portland Cement was even more marked; thus with the particular cements experimented upon, the final setting time was reduced from 5 hours 40 minutes to 2 hours by the addition of only 2½ per cent. of Ciment Fondu to the Portland Cement.

(4) For mixtures containing more than 20 per cent. and less than 80 per cent. of either Portland Cement or Ciment Fondu, the initial and the final setting times were both below 15 minutes, and for about equal quantities of the two cements, the setting times were practically simultaneous at 6½ minutes. For these rapid setting cements it was not practicable to mix for a full five minutes the usual quantity and place it in the Vicat mould before setting had commenced. The time of mixing was, therefore, cut down to two minutes, and use was made of a smaller mould of the same depth as the standard apparatus with a smaller quantity of cement.

The results were very consistent as will be seen from the experimental points that are plotted in Fig. 6.

(2) *Tensile Strengths of Various Mixtures.*

Briquettes made in the usual manner with 21 or 22 per cent. of water were kept one day in air, and the remainder of the time until tested, in water.

For the quick-setting mixtures only sufficient material for one briquette was mixed at one time.

The briquettes were tested at different ages, and the results are plotted in Figs. 7 and 8.

The curves show the tensile strength of neat Ciment Fondu, of neat Portland Cement, and of various mixtures of the two cements after various intervals of time.

The following facts may be deduced:—

(1) The strength of the Ciment Fondu developed very rapidly—*e.g.*,

After 1 day the tensile strength was 560 lb. per sq. in.
" 3 " " " 830 " "
" 7 " " " 935 " "
" 28 " " " 1,010 " "

Portland Cement does not usually develop its strength so quickly, though with this particular sample, the figures obtained were :

After 1 day the tensile strength was 250 lb. per sq. in.
" 3 " " " 630 " "
" 7 " " " 800 " "
" 28 " " " 920 " "

(2) The addition of a small percentage of Ciment Fondu to the Portland Cement lowers its strength very considerably—as will be seen from the following figures :

	100 per cent. Portland Cement	10 per cent. Ciment Fondu, 90 per cent. Portland Cement.
3 days	630	350
7 "	800	560
28 "	920	720
3 months	925	830

(3) The addition of a small percentage of Portland Cement to Ciment Fondu, on the other hand, does not so seriously affect the strength as will be seen from the following figures taken from the curves.

	100 per cent. Ciment Fondu.	10 per cent. Portland Cement, 90 per cent. Ciment Fondu.
1 day	560	560
3 days	830	810
7 "	935	900
28 "	1,010	965
3 months	—	1,035

(4) In each case the strength of the mixture continues to increase with age, though the rate of increase for the 50 per cent. mixture is very little from the 7 days to the 28 days.

Fig. 9 shows the manner in which the strength of the 50 per cent. mixture increases during the first 24 hours in air. The strength was approximately the same after 24 hours when the briquettes had been kept in water either for the whole or for a part of this time.

(3) *Compression Strengths of Various Mixtures.*

In Figs. 10 and 11 are shown the results of compression tests made upon neat Ciment Fondu, neat Portland Cement, and various mixtures of the two cements after various times.

The curves have the same general shapes as those for the tensile strength, as may be seen most clearly by comparing Figs. 7 and 10.

The effect of adding a small percentage of Ciment Fondu to the Portland Cement is again very marked, as the following figures indicate.

	100 per cent. Portland Cement tons/square inch	10 per cent. Ciment Fondu, 90 per cent. Portland Cement tons/square inch.
3 days	2·00	1·10
7 "	3·20	1·90
28 "	4·55	3·20

The addition of a small percentage of Portland Cement to Ciment Fondu has, however, very little effect—in fact, on the 3 days and 7 days tests, there is an increase of strength even with 30 per cent. or more of Portland Cement, and on the 28 days test the drop in strength is very little.

	100 per cent. Ciment Fondu tons/square inch.	30 per cent. Portland Cement. 70 per cent. Ciment Fondu, tons/square inch.
3 days	2·40	2·85
7 "	3·00	3·45
28 "*	4·20	3·75

The curves, like those for the tensile strength, show a general increase of strength with age for all the mixtures.

(4) *Soundness of Various Mixtures.*

Soundness tests of the two neat cements and of several mixtures were made with " Le Chatelier " test apparatus, and in each case the amount of expansion or contraction was negligible.

In conclusion, it may be pointed out that if practical use is to be made of the special properties of these mixtures of Ciment Fondu and Portland Cement, the mixing must be done very thoroughly on account of the sensitive manner in which the setting times may alter with a small change in the relative proportions of the two cements. If the mixing were done in a haphazard manner, the setting might be inconveniently irregular throughout the mass.

* These figures are from the mean curves ; the actual test results were rather higher.

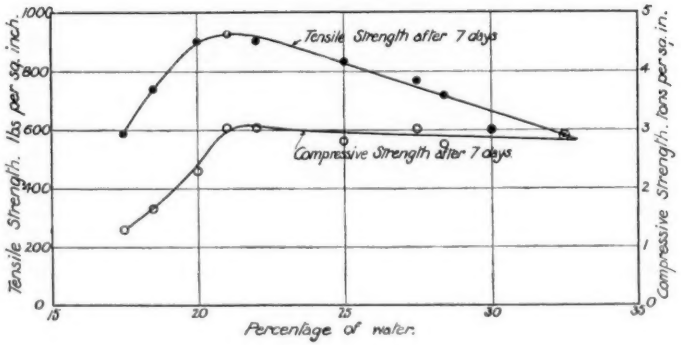

Tensile Strength after 7 days
Compressive Strength after 7 days
Tensile Strength. lbs per sq. inch.
Compressive Strength. tons per sq. in.
Percentage of water.

Fig. 1. Influence of Water Content upon the Strength of Neat Ciment Fondu.

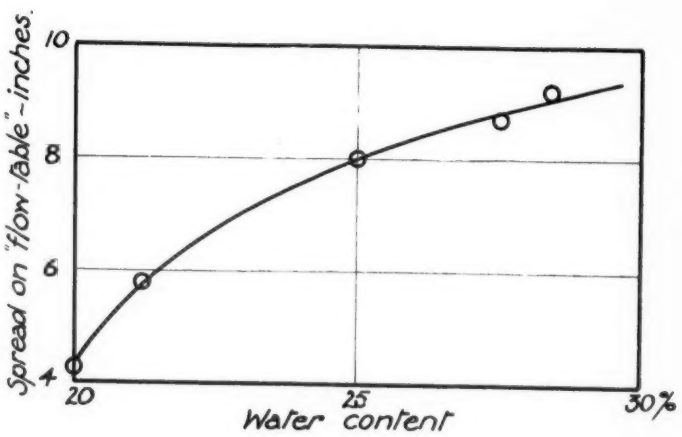


Fig. 2. Consistency Curve.

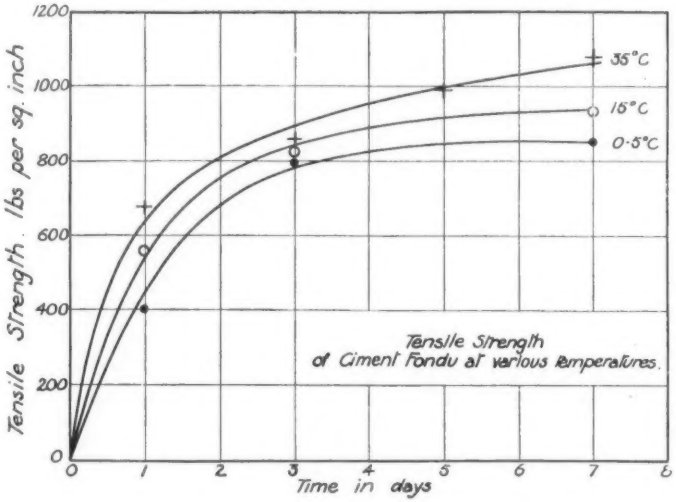


Fig. 3. Tensile Strength of Ciment Fondu at various temperatures.

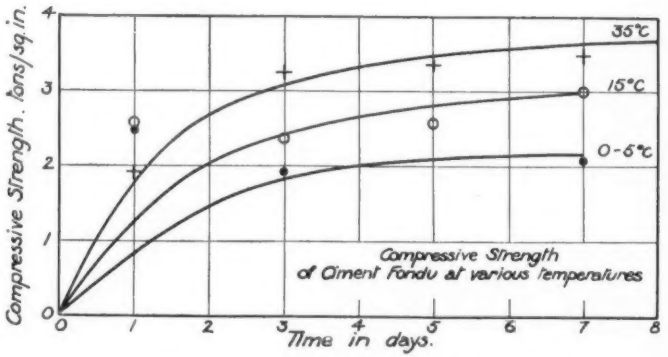
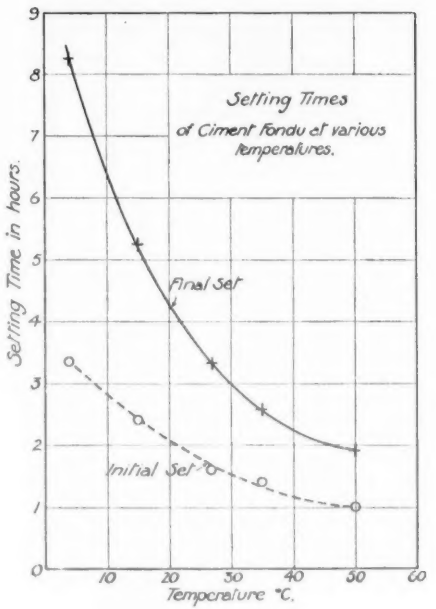


Fig. 4. Compressive Strength of Ciment Fondu at various temperatures.

Fig.5. Setting times of Ciment Fondu at various temperatures.



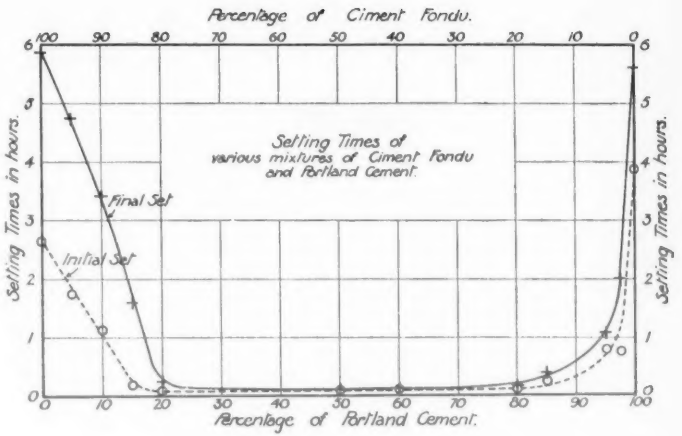


Fig. 6. Setting Times of various mixtures of Ciment Fondu and Portland Cement.

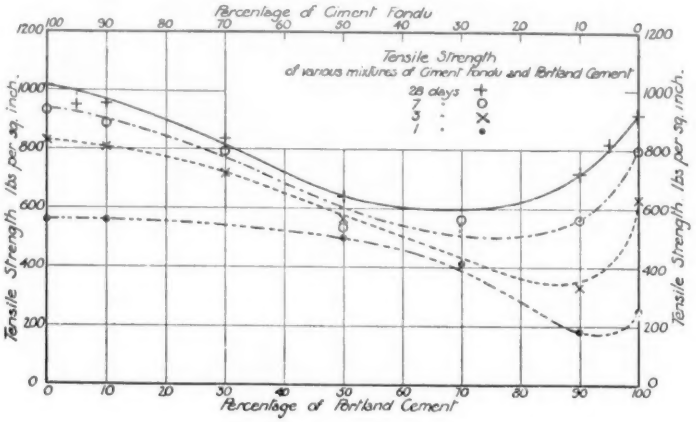


Fig.7 Tensile Strength of various mixtures of Ciment Fondu and Portland Cement.

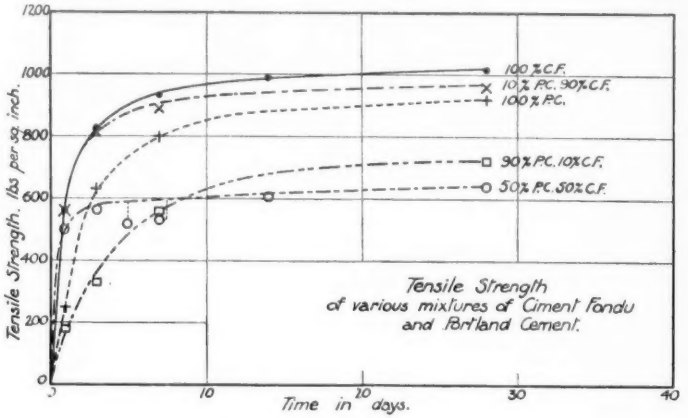

100 % C.F.
10 % P.C. 90 % C.F.
100 % P.C.
90 % P.C. 10 % C.F.
50 % P.C. 50 % C.F.
Tensile Strength
of various mixtures of Ciment Fondu
and Portland Cement.
Tensile Strength. lbs per sq. inch.
Time in days.

Fig.8. Tensile Strength of various mixtures of Ciment Fondu and Portland Cement.

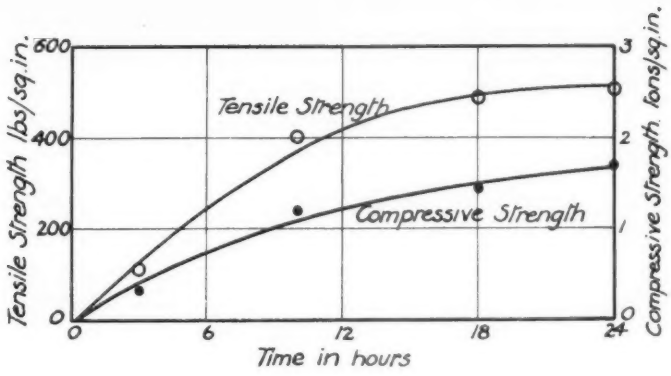


Fig. 9. Tensile and Compressive strengths of 50% mixture.

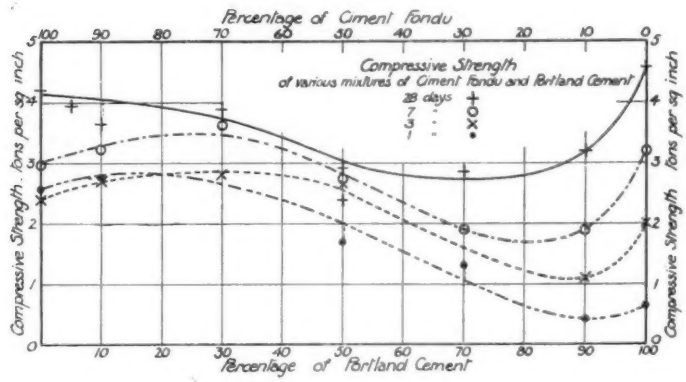


Fig 10. Compressive Strength of various mixtures of Ciment Fondu and Portland Cement.

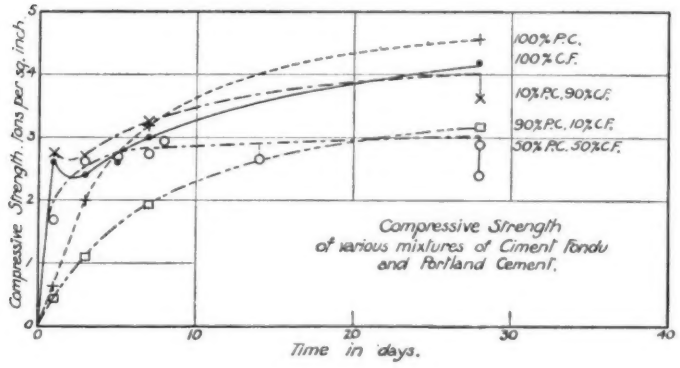


Fig. 11. Compressive Strength of various mixtures of Ciment Fondu and Portland Cement.

INTERNATIONAL ART EXHIBITIONS.

Mr. Hesketh Hubbard in *The Times* of 9 October, laments the absence of foreign, American and Colonial Art Exhibitions (and Mr. Hubbard's use of the term "art" applies apparently only to paintings) in London, and the equal absence of the knowledge of English work in other countries, and outlines a scheme by which this state of things might be remedied. Mr. Arthur Keen, in a letter which was published in *The Times* on 13 October, shows that at any rate with regard to architecture a considerable advance has been made in the direction of Mr. Hubbard's aspirations. Mr. Keen wrote as follows:

"Mr. Hesketh Hubbard's scheme for international exhibitions is a very sound one and probably quite practical.

"The Royal Institute of British Architects has held many exhibitions of foreign and Colonial architecture and in every instance the cordiality of the response to the invitation has justified the belief that exhibitions in the other arts would be a great success. In the case of an exhibition of Swedish architecture held recently the Swedish Ambassador himself gave material assistance and a collection, not only of drawings and photographs, but also of models possessing extraordinary interest and value, was obtained. Previous to this a collection of Dutch work was shown, and a well-known Dutch architect came here to lecture on the modern work in Holland. The American architects sent us a year or two ago perhaps the most remarkable collection of photographs of buildings ever seen, and the buildings illustrated were a good representative group of the best architecture throughout the States. This exhibition resulted in a corresponding collection of British work being sent to the States, and it has been shown in a great many centres. In addition to these general exhibitions it happens every two or three years that the Royal Gold Medal goes to a foreign architect and this results in a London exhibition of that particular man's work.

"The help of honorary corresponding members abroad in such matters as these is very great, but I am confident that with careful organisation and the help of foreign societies Mr. Hubbard's proposal might be carried out quite successfully."

Allied Societies

THE BUCKS SOCIETY OF ARCHITECTS.

INFORMAL MEETINGS.

54 *Upton Road, Slough,*
9 *October* 1924.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—A novel series of informal meetings open to the public is included in the winter programme of the above society.

The details will prove of interest to my colleagues of the Allied Societies, who may be seeking fresh ideas for the advancement of our objects. A means of maintaining the attention of our members and encouraging the promotion of the study of architecture and the building crafts is here indicated.

Our meetings are divided into two sections; the first section of three entitled "Architecture and Architects" from the view-points of a layman, a builder and an artist.

The second section deals with brickwork, masonry, carpentry and plumbing, prefaced by an evening devoted to estimates and estimating. Local men engaged in the trades will give their experiences of difficulties met with in practice, and how they were overcome—rather than any attempts at mere text-book compilation.

Questions and discussion will follow each address, and every endeavour will be made to secure practical and useful results.

The first of the series will be held at Oakley House, Slough, on October 23, at 7.30 p.m.

I shall be pleased to forward further information to any of my colleagues of the Allied Societies who may wish to consider our programme for use of the proposals therein conveyed.

Yours faithfully,

E. J. DIXON [*A.*],
Chairman, Bucks Society of Architects.

ARCHITECTS' BENEVOLENT SOCIETY.

THE INSURANCE SCHEME.

Members of the architectural profession who received three weeks ago the booklet issued by the Architects' Benevolent Society, in which was explained the Society's scheme of insurance, which covers all classes of insurance, will be interested to know that the immediate result promises well, and that the Council consider there is every prospect of the scheme meeting with the sympathy and co-operation of the architectural profession as a whole. So far ninety-seven enquiries have been received, most of them with regard to several policies under the Scheme. Six architects immediately transferred their household insurances through the agency of the Architects' Benevolent Society, and two others have insured houses for their clients against the risk of fire. In all seventeen policies have already been carried through and seven are definitely in negotiation. The rest of the enquiries are being followed up, and will, it is hoped, result satisfactorily and with benefit to the Society.

From the letters which have been received it would seem that the Scheme has aroused much interest among architects, and that when they find themselves in a position to do so, they will be glad to give it their active support. One member writes: "I have read your booklet with interest and feel that any new policies taken out should certainly be negotiated through your agency." Another: "My life is already insured, but I will do all in my power to bring the Scheme to the notice of persons wishing to insure." And a third: "The desire to assist the efforts of the Society will be instinctive amongst architects and is shared by me, but in cases such as my own in which insurances are already placed there must be delay before the Scheme can reach anything like full effectiveness. My own purpose is to keep the matter constantly in mind and to neglect no opportunity either for the early transference of existing insurances or for the placing with the Society of such new insurances as may be at my disposal. The difficulty with existing insurances is that in most cases they have been effected through the agency of old acquaintances whose feelings one is loath to wound."

Architects are reminded that it is not necessary for those wishing to insure through the Society to transfer their insurances from the offices where they are already placed, but only to inform the Secretary A.B.S. that they wish to transfer the agency to the Society. As several post cards have been received without signatures it is hoped that in any instances where replies have not been received the Secretary A.B.S. will be notified.

Obituary

WILLIAM PYWELL [*F.*], J.P.

Mr. Pywell died in May of this year at an Ealing nursing home. Mr. Pywell was 65, a native of Stamford, Lincolnshire, and was educated at Uppingham School, and practised as an architect at Hanwell and Stamford.

Among his works were the following :—*Churches*—Chancel and vestries, Parish Church, Hanwell ; St. Thomas's Church, Hanwell ; St. James's Church and Parish Hall, Ealing. *Schools*—Alterations to Stamford Grammar Schools ; reconstruction of St. Mark's Schools, Oakland Road Schools, St. Anne's Schools, all of Hanwell ; Church Institute, Clay Hill, Enfield.

Mr. Pywell was a medallist of the Architectural Association ; he was also a contributor to Rivington's Building Construction in the revised edition, 1915.

Towards the end of his professional career, Mr. Pywell took up many public offices. He was chairman of the Hanwell District Council for five terms of office, and was also a member of the Middlesex County Council for Greenford and Hanwell, Justice of the Peace for Middlesex.

As a Freemason he was P.P.G.S. of Works, Middlesex, and was past Worshipful Master of the Horsa-Dun Lodge and also the Ealing Lodge. Mr. Pywell was elected an Associate in 1889 and a Fellow in 1905.

CAPTAIN F. A. BREWERTON [*A.*].

Captain F. A. Brewerton, M.C. [*A.*], F.S.I., who died on 24 July 1924, aged 36 years, was educated at the Hulme Grammar School, Manchester, the School of Technology, and the School of Architecture, Manchester, and received his early professional training in the office of Messrs. Banks, Fairclough & Stephen, civil engineers and architects, of Leigh and Manchester.

On the outbreak of war he joined the Royal Engineers (T.) and saw considerable service in France. He was severely wounded during the March offensive of 1918, and was awarded the Military Cross for " conspicuous gallantry and devotion to duty when in charge of two sections of Sappers in the defence of a position. By his splendid courage and example he was instrumental in considerably delaying the enemy's advance and inflicting heavy casualties on them. He held the position throughout the day, and only withdrew when ordered under cover of darkness."

On demobilisation Captain Brewerton entered into private practice as an architect and surveyor, being engaged for some time on the design and lay-out of a portion of the Manchester Housing Scheme and various housing schemes in the district.

His professional engagements included architectural design and practice in many commercial and industrial undertakings throughout South Lancashire and Yorkshire.

THOMAS JAMES PETERS [*A.*].

Mr. Peters was 35 years of age and died on the 24th September. He served with the Royal Construction Engineers in France with the British Expeditionary Force during the war. At the date of his death he was an architectural assistant in the Building Surveyor's Department, Newcastle-upon-Tyne Education Committee, and was principally interested in matters relating to school design. He was elected an Associate in 1921.

W. D. T. MUNFORD [*Licentiate*].

Mr. Munford was a native of Torquay and served his articles with the late Mr. William Watson of that town. Going north in 1880, he became assistant to the late Mr. William Owen, of Warrington, and was engaged on the Port Sunlight soap works and estate buildings. Ten years later he started practice at Preston, where he remained until his retirement in 1922.

The following is a list of some of the buildings designed and carried out by him :—Central stores, etc., for Preston Co-operative Society ; central stores and branches for the Winnington and Northwich Co-operative Society, Ltd. ; central stores and branches for the Runcorn and Widnes Co-operative Society, Ltd., at both places ; central stores for Winsford Society ; cricket pavilion and club house with large hall for Messrs. Brunner Mond & Co. at Winnington ; several mill extensions about Preston ; branch bank in Fishergate, Preston, for the Union Bank of Manchester, Ltd. ; many residences and other property in Preston, etc.

W. WINDER LEE [*Licentiate*].

Mr. Lee commenced practice in Darlington as partner in the firm of Kitching & Lee in 1905. Among his prominent work may be mentioned new offices of the Cargo Fleet Iron Co., erected during the war, and the rebuilding of Barton Hall, Yorkshire.

In 1922 the partnership was dissolved, and in partnership with his son he continued in practice at Darlington and Redcar, Yorks, as W. Winder Lee & Son until his death this year.

The practice is being carried on by his son, Mr. Norman Winder Lee, at Darlington.

J. W. LOCKHART [*Licentiate*].

Mr. J. W. Lockhart served his apprenticeship with Mr. James A. Morris, A.R.S.A. [*F.*], Ayr, afterwards with Messrs. Salmon & Son Glasgow, for a number of years. Commenced practice in Ayr in 1909 and joined the late Mr. John Murdoch, I.A., in partnership. Has carried out a number of public and domestic works. Mr. Lockhart was elected a Licentiate in 1911.

ROYAL ACADEMY LECTURES.

Professor A. P. Laurie, D.Sc., Professor of Chemistry at the Royal Academy, will give a lecture on 19 November at the Royal Academy on " Some English Cathedrals and Stone Decay." Professor Laurie has made a careful inspection of some of the English cathedrals during the summer months, especially with regard to stone decay. Admission to the lecture, which is at 4 p.m., is free, and cards of admission can be obtained on application to the Secretary of the Royal Academy, Burlington House, W.

LOAN LIBRARY CATALOGUE.

A new catalogue for the Loan Library has been recently compiled and may be purchased at the Institute. Price 1s. 6d. Postage 3d. extra.

ARCHITECTS AND INCOME TAX.

A Member has written to me as follows :—

"Up to the present I have returned each year the actual cash received, less the office expenses for the same period ; *i.e.*, the average net income for the previous three years has been returned and I have been assessed at this amount.

"The Inspector is now, however, making a demand that not only the actual cash received shall be returned, but also a statement as to the value of work done during the previous year but not yet paid for.

"In a provincial practice where the jobs are numerous and comparatively small, I find a great difficulty in estimating the value of the work in progress, as many of the jobs hang about three or four years ; and until a building contract is signed you will readily understand it is impossible to say what payment will be actually received for the preliminary work. As you know, clients do not willingly pay for preliminary work and it is generally inexpedient to bring an action for the recovery of such charges.

"I have, therefore, been requested to ascertain, if possible, what is the custom among architects in making their Income Tax returns, and I shall be greatly obliged if you can give me any information on this subject based upon the actual experience (if possible) of some of your Members."

If any Members are prepared to give me, in confidence, information as to their experience in this matter I shall be indebted to them.

IAN MACALISTER,
Secretary R.I.B.A.

NEW YORK MEDAL FOR THE BEST BUILDING FOR 1923.

The Downtown League of New York City has awarded the first prize for the best downtown building erected in 1923 to the New York Cotton Exchange Building, of which Mr. Donn Barber, F.A.I.A. (Honorary Corresponding Member R.I.B.A.) is the architect.

THE UR EXHIBITS AT THE BRITISH MUSEUM.

Mr. R. Langton Cole [*F.*] writes expressing the hope that members will make a point of seeing the Ur exhibits at the British Museum (Assyrian Basement) before they are removed. As examples of building construction methods they are remarkably interesting.

PHOTOGRAPHS OF LIVERPOOL CATHEDRAL.

Mr. Stewart Bale, of 33 Lord Street, Liverpool, writes that in the article by Mr. E. Bertram Kirby on Liverpool Cathedral published in the R.I.B.A. JOURNAL of 12 July it was not indicated that he supplied the excellent photographs which, as official photographer, he took of the cathedral, and which provided illustrations for the article. We gladly make the acknowledgment now.

BOARD OF ARCHITECTURAL EDUCATION.

EXHIBITION OF DESIGNS OF STUDENTS EXEMPTED FROM THE R.I.B.A. FINAL EXAMINATION.

The designs submitted by students exempted from the Final Examination (with the exception of the subject of professional practice) will be on exhibition from Monday, 20 October to Thursday, 30 October 1924, inclusive, in the Galleries of the Royal Institute of British Architects, 9 Conduit Street, W.1. The exhibition will be open daily between the hours of 10 a.m. and 5 p.m.

The R.I.B.A. Board of Architectural Education Silver Medal for Recognised Schools is awarded for the best set of designs submitted at this exhibition.

This year the following schools, which have courses of five or more years' duration recognised by the Royal Institute for the purpose of exemption from the Final Examination, have sent exhibits :

The Architectural Association (London).
School of Architecture, the University of Liverpool.
School of Architecture, the University of London.
School of Architecture, the University of Manchester.
Glasgow School of Architecture.
Robert Gordon's Colleges, Aberdeen.
School of Architecture, McGill University, Montreal.

R.I.B.A. INTERMEDIATE EXAMINATION. NOVEMBER, 1924.

The centres for this Examination will be London and Leeds. At both centres the Examination will be held on 21, 24 and 25 November.

At the London centre the Oral Examination will be held on 27 November, and at the Leeds centre on 26 November.

SIR JOHN SOANE'S MUSEUM, 13 LINCOLN'S INN FIELDS, W.C.2.

This interesting house and art collection is open free on Thursdays and Fridays in October, 10.30-5, and in November, 10.30-4.

Notices

THE OPENING GENERAL MEETING.

The First General Meeting (Ordinary) of the Session 1924–25 will be held on Monday, 3 November 1924, at 8.30 p.m., for the following purposes :—

To read the Minutes of the Fifteenth General Meeting of the Session 1923–24 held on 2 June 1924 ; formally to admit members attending for the first time since their election.

To read the names of candidates nominated for election on 1 December 1924.

Mr. J. Alfred Gotch, Hon. M.A. Oxon, F.S.A. (President) to deliver the inaugural address of the Session.

To present the R.I.B.A. Medal and Diploma for the Best London Street Frontage 1923 to Mr. Francis T. Verity [*F.*].

ELECTION OF MEMBERS, 5 JANUARY 1925.

Associates who are eligible and desirous of transferring to the Fellowship Class are reminded that if they wish to take advantage of the election to take place on the 5th January 1925, they should send the necessary nomination forms to the Secretary not later than the 8th November.

ELECTION OF MEMBERS.

1 DECEMBER 1924.

The following applications for election have been received. Notice of any objection or other communication respecting the candidates must be sent to the Secretary for submission to the Council prior to Monday, 3 November 1924.

AS FELLOWS (21).

ARCHER-BETHAM : ARTHUR [*A.* 1920], 44, Park Lane, Croydon ; 59, Oakley Street, Chelsea, S.W.

BIGGS : ALFRED ERNEST [*A.* 1902], 1, Museum Street, W.C.1. ; 65, Grove Hill Road, S.E.5.

CATHCART : WILLIAM D'ARCY [*A.* 1909], Puzey Chambers, Manica Road, Salisbury, S. Rhodesia.

CULLIFORD : LEONARD ARTHUR, F.S.I. [*A.* 1914], 3, John Street, Bedford Row, W.C.1 ; Hotel Norman, Carlton Road, Putney, S.W.

DAWSON : NOEL JOHN [*A.* 1907], 1, Rue de l'Ancienne Bourse, Alexandria, Egypt ; Union Club, Alexandria.

HAKE : GUY DONNE GORDON [*A.* 1911], Royal West of England Academy School of Architecture, Bristol ; 1, The Paragon, Clifton, Bristol.

HAYS : JOHN WILSON [*A.* 1918], Central Chambers, Wingate, Co. Durham, and 52, Camden Street, North Shields ; "The Homestead," Wingate, Co. Durham.

KNIGHT : EDWARD FROST [*A.* 1899], Inwood, Alton Road, Parkstone, Dorset.

LETHBRIDGE : JAMES MORTON [*A.* 1903], 205, Archway Road, Highgate, N.6.

MACLENNAN : THOMAS FORBES [*A.* 1903], 7, South Charlotte Street, Edinburgh ; 14, Cluny Terrace, Edinburgh.

MURRELL : HAROLD FRANKLYN [*A.* 1906], 35, Bedford Row, W.C.1 ; 8, Lancaster Road, West Norwood, S.E.27.

NOTT : GEORGE [*A.* 1907], 17, New Street, Leicester ; The Old School House, Kirby Muxloe, near Leicester.

OWEN : WILFRID SCOTTER, M.A., P.A.S.I., [*A.* 1912], 9, King's Bench Walk, Temple, E.C.4 ; 92, Harvard Court, N.W.6.

PIGOTT : RICHARD MOUNTFORD, M.C. [*A.* 1913], 35, Bedford Row, W.C.1 ; 53, West Side, Wandsworth Common, S.W.18.

RIPLEY : CEDRIC GURNEY [*A.* 1914], Messrs. Palmer and Turner, Union Building, Shanghai, China ; Bowthorpe, Ipswich.

SMITH : JAMES [*A.* 1906], Oficina de Vin y Obras, Ferro Carril del Sud, Buenos Aires, Argentine.

THORNTON : HAROLD, B.A. [*A.* 1911], 11, Bond Street, Dewsbury ; West Croft, Park Road, Dewsbury.

TOY : SIDNEY, F.S.A. [*A.* 1923], 1, Cloisters, Temple, E.C.

TURNER : HORACE GEORGE [*A.* 1910], Messrs. Hemmings and Berkley, Hankow, China.

WELCH : HERBERT ARTHUR [*A.* 1911], 7, New Square, Lincoln's Inn, W.C.2 ; Devon House, Turner Drive Golder's Green, N.W.11.

WETENHALL : EDWARD BOX, F.S.I. [*A.* 1894], 38, Parliament Street, S.W.1 ; Stanstead, Cheam Road, Sutton.

AS ASSOCIATES (15).

BHEDWAR : CAVASJI KAIKHUSHRU [*Special Examination*], 17, Elphinstone Circle, Fort, Bombay, India.

BLACKBURNE : SHIRLEY LANPHIER [*Final Examination*], 16, Endsleigh Street, W.C.1.

BLAKE : JOHN PATRICK, P.A.S.I. [*Special Examination*], "Norvic," Hibernia Road, Hounslow.

BRADEN : KEITH ARNOLD [*Special War Examination*], 1, Dorset Square, N.W.1.

BRIGHTIFF : CHARLES HENRY [*Final Examination*], 6, Rutland Park Mansions, Cricklewood, N.W.2.

CAMPBELL : ARCHIBALD ALASTAIR VIVIAN [*Special Examination*], c/o Union Bank of Australia, 71, Cornhill, E.C.

CARELESS : SEFTON STOCKFORD [*Special Examination*], "Cotswold," Pinner Hill, Middlesex.

COBB : ROBERT STANLEY, M.C. [*Special Examination*], Bisterne Parsonage, Bisterne, Hants.

COOPER : CARILEF MILES, M.C., M.A.Oxon. [*Special War Examination*], Ulpha, Bourne End, Bucks.

DE BURGH : ROBERT STANLEY [*Special War Examination*], "Deer Leap," St. Cross, Farnham, Surrey.

EVE : CECIL GEORGE WILLIAM [*Final Examination*], Netherleigh, South Nutfield, Surrey.

GEESON : ALFRED GODWIN [*Special Examination*], Erskine Chambers, 13, New Street, St. Martin's, Leicester.

HODGES : ALFRED WALTER [*Final Examination*], 10, Fortescue Road, St. Thomas, Exeter.

REILY : ERIC [*Special Examination*], Office of Works, Government of Northern Ireland, 118, Royal Avenue, Belfast.

WILSON : JAMES MOLLISON [*Special*], c/o T. Alison, Esq., Rosehill, Dalkeith, Scotland.

AS HON. ASSOCIATES (6).

BRANGWYN : FRANK, R.A., R.P.E., Hon. R.S.A., Member of the Institut de France, Academy of St. Luke, Rome, Royal Academy, Berlin, etc. ; Temple Lodge, Queen Street, Hammersmith, W.

MACLAGAN : ERIC ROBERT DALRYMPLE, C.B.E., Director of the Victoria and Albert Museum, South Kensington, S.W.7.

SQUIRE : JOHN COLLINGS, Swan House, Chiswick Mall, W.4.

WALSTON : SIR CHARLES, Fellow of King's College, Cambridge, Litt.D. Cantab. and Trinity College, Dublin, L.H.D. Columbia University, New York, Ph.D. Heidelberg, Late Reader in Classic Archæology, Director of Fitzwilliam Museum and Slade Professor of Fine Arts, Cambridge, etc. ; Newton Hall, Newton, Cambridge.

WELLS : JOSEPH, M.A., Warden of Wadham College and Vice-Chancellor of University of Oxford, Wadham College, Oxford.

YERBURY : FRANCIS ROWLAND, "White Steading," Amersham, Bucks.

AS HON. CORR. MEMBER (1).

OSTBERG : RAGNAR, Professor at the Royal Academy of Art, Sweden, 10, Blasieholmstorg, Stockholm.

Competitions

RECONSTRUCTION OF THE KONINGINNE BRIDGE, ROTTERDAM.

With reference to the announcement of this competition in the last issue of the JOURNAL, His Majesty's Consul-General at Rotterdam has informed the Department of Overseas Trade that he has received from the Rotterdam municipal authorities a series of 72 questions and answers amplifying and explaining the technical points which arise in connection with the plans.

As a translation would involve considerable time and difficulty His Majesty's Consul-General suggests that any British firm desiring specific information on the subject should communicate with him direct.

BETHUNE MEMORIAL TO THE MISSING.

The Imperial War Graves Commission desire Members and Licentiates of the Royal Institute to be reminded that applications to take part in the above Competition from persons other than those who had signified their intention of competing on or before 1 January 1924 cannot be considered. Due notice of this regulation was published in the Professional Press on various occasions during August and September, 1923.

MASONIC MEMORIAL COMPETITION.

Apply to The Grand Secretary, Freemasons' Hall, Great Queen Street, W.C.2. Last day for applying for conditions, 23 August 1924. Deposit, £1 1s. Closing date for receiving designs, 1 May 1925. Assessors: Sir Edwin Lutyens, R.A. [*F.*] (appointed by the President); Mr. Walter Cave, [*F.*], Mr. A. Burnett Brown, F.S.I.

MANCHESTER ART GALLERY.

Apply to the Town Clerk, Town Hall, Manchester. Closing date for receiving designs, 20 January 1925. Assessors: Mr. Paul Waterhouse, F.S.A. [*F.*], Professor C. H. Reilly, O.B.E. [*F.*], Mr. Percy S. Worthington, Litt.D., F.S.A. [*F.*].

SOUTHPORT: FIRST CHURCH OF CHRIST SCIENTIST; CHURCH AND SUNDAY SCHOOL.

Apply to Messrs. J. E. Sanders & Son, A.R.I.B.A., 219a, Lord Street, Southport. Closing date for receiving designs, 1 December 1924. Deposit 10s. Assessors: Messrs. J. E. Sanders & Son.

HULL: CONCRETE COTTAGES COMPETITION.

Apply to Messrs. G. and T. Earle, Ltd., Wilmington, Hull. Closing date for receiving designs, 31 October 1924.

Members' Column

CHANGE OF ADDRESS.

MR. WALTER DEWES has removed his offices from 4 Bloomsbury Place, W.C.1, to 37 Bedford Row, W.C.1. New telephone No., Chancery 7512.

MR. J. BEAUMONT TANSLEY has changed his address from Espérance, Woodcote Valley Road, Purley, to Espérance, Ashburnham Gardens, Eastbourne.

MR. H. T. JACKSON [*A.*] has changed his address to 53 Whitworth Road, South Norwood, London, S.E.25.

PRACTICE WANTED.

A.R.I.B.A. desires to buy practice or partnership, preferably in Leicester.—Reply Box 072, c/o Secretary R.I.B.A., 9 Conduit Street, W.

TO BE LET.

Two nice offices near Bedford Row. Telephone, electric light. One could be had furnished or furniture could be bought. Rent, unfurnished, £80, including rates. Certain mutual working arrangements might also be made.—Box 0152, c/o Secretary R.I.B.A., 9 Conduit Street, W.

OFFICE ACCOMMODATION WANTED.

LONDON architect and surveyor requires very small unfurnished office in the West End, preferably where his assistance could be occasionally utilised.—Apply Box 2994, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

A.R.I.B.A. requires light offices, from December quarter, or would consider sharing suite. Westminster or West district. Please state full particulars with inclusive terms.—Box 1011, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

APPOINTMENTS VACANT.

CHIEF ASSISTANT (single) A.R.I.B.A. required for architect's office in Johannesburg. Must be thoroughly conversant with building construction, and if possible have a knowledge of steel construction. Must also have a thorough knowledge of quantity surveying and should possess a diploma to this effect. Three years' agreement. Salary £360, £420, £480. Part passage paid. —Apply to the Secretary R.I.B.A., 9 Conduit Street, W.1.

EXPERIENCED Assistant wanted by Nottingham architect. Working drawings, details and quantities. State age, experience and salary.—Reply Box 2594, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

IN EXCHANGE for part services as architectural assistant, home offered, London, W.—Apply Box 1994, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

ASSISTANTS (two) required by the Government of Ceylon for service in the Architectural Office of the Public Works Department for a period of three years with possible permanency. Salary £500 rising by annual increments of £30 to £560 a year, and then (if appointment is made permanent) to £960 per annum with efficiency bar at £720, payable locally in rupees at the Government rate of exchange of 15 rupees to the £1. Free passages.

Candidates, preferably unmarried, age 26–30, must have passed examination for Associate Membership of the R.I.B.A. or Membership of Society of Architects, and have special experience in the actual design and construction of reinforced concrete buildings and of steel framed buildings. Preferably with war service.

Apply at once by letter, stating age, qualification, and experience to the Secretary R.I.B.A., 9 Conduit Street, London, W.1.

APPOINTMENTS WANTED.

ARCHITECT, A.R.I.B.A., age 33, married, 4 years' war service. Then had opportunity to travel in Australia and Africa. Wishes to assist architect with work Brighton, Horsham, Worthing area. Resident in Sussex. Drives and owns car. Supervision, inspection, reports, surveys, interviews.—Apply Box 8104, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

POSITION required by A.R.I.B.A., M.S.A., preferably abroad or by sea in England; 20 years' experience. Has erected many creditable buildings. Fluent French and ex-captain R.E. Has London practice.—Box 1010, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

A.R.I.B.A., Kent, with small practice, is open to assist architects in own office or otherwise; makes a speciality of domestic work. Would be glad to get in touch with a busy, fully established Member, who would welcome interest in advertiser's office and services of assistance.—Reply Box 2494, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

A.R.I.B.A. with A.A. and Atelier training requires a post—half-time (mornings) to assist in any capacity, preferably designing, *i.e.*, competition work, or ordinary good domestic work.—Apply Box 2794, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

ASSOCIATE (33) desires responsible position where sound knowledge and 14 years' experience of domestic work would be of service. Advertiser has built houses by direct labour, and is at present in charge of technical department of land development syndicate. A small amount of capital would be invested if required.—Reply Box 7104, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

A WELL-EDUCATED young Frenchman, good draughtsman, having had two years' training with a French Government architect, is anxious to obtain a year's training with an English architect in the South of England in order to improve his knowledge of the English language and to become acquainted with English architectural terms. Would be willing to assist with children's French studies and would give his services in exchange for his keep and a little pocket-money.—Further particulars can be obtained on application to the Secretary R.I.B.A., 9 Conduit Street, London, W.1.

WARNING TO MEMBERS.

On the 30th September at Bow Street Police Court a man was sentenced to three months' imprisonment for obtaining money by false pretences by impersonating an ex-Licentiate of the R.I.B.A. and calling on architects and appealing for temporary assistance.

IAN MACALISTER,
Secretary R.I.B.A.

FNB